#### REMARKS

Claims 1-8 and 10-64 remain in the application for consideration. In view of the following remarks, Applicant respectfully requests withdrawal of the rejections and forwarding of the application onto issuance.

#### § 103 Rejections

Claims 1-8, 10-19, 24-28, 30-31, 37-43, 48-49 and 54-64 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,295,261 to Simonetti (hereinafter "Simonetti") in view of U.S. Patent No. 5,539,922 to Wang (hereinafter "Wang").

Claims 20-23, 29, 32-36, 44-47 and 50-53 stand rejected under 35 U.S.C. § 103(a) as being obvious over Simonetti in view of Wang in further view of U.S. Patent No. 6.151,601 to Papierniak et. al (hereinafter "Papierniak").

Before undertaking a discussion of the substance of the Office's rejections, the following discussion of the §103 Standard, as well as the primary cited references, is provided.

## The § 103 Standard

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the Graham factors). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd.Pat. App. & Inter. 1985) (emphasis added).

Chapter 2100 of the MPEP provides further instruction as follows: "[w]ith regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the

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reference teachings establish a *prima facie* case of obviousness) is more probable than not." See MPEP 2142.

Furthermore, "Itlhe factual inquiry whether to combine references must be thorough and searching." Id. (emphasis added). It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'") (quoting C.R. Bard, Inc., v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); In re Dembiczak, 175 F.3d 994, 999, 50 USPO2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("teachings of references can be combined only if there is some suggestion or incentive to do so.") (emphasis in original) (quoting ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)); In re Fritch, 23 USPO2d 1780, 1784 (Fed. Cir. 1992) ("It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. [O]ne cannot use hindsight reconstruction to pick and choose among isolated

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### The Simonetti Reference

the manner claimed").

Simonetti describes a database structure in which the fields of each database record are divided into two classes, navigational and informational data. The data in the navigational fields is stored in a topological map which may be viewed as a tree structure or the merger of two or more such tree structures. The informational data is stored in a conventional relational database. Each leaf node in the topological map specifies a unique record in the relational database.

## The Wang Reference

Wang describes a communication system that has a hierarchical system of nodes organized into multiple node trees, where the communication system is for completing calls between various ports for interfacing to various transceivers. The method used in the hierarchical system tracks the location of the transceiver as it moves between ports and trees of the system. The communication system provides a method of linking root nodes of various trees while attempting to reduce the amount of memory necessary for tracking transceiver movement through the

system. The method tries to establish and grow node trees in various geographic locations while providing for links between the root nodes of the trees.

#### The Claims

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## Simonetti in view of Wang

Claims 1-8, 10-19, 24-28, 30-31, 37-43, 48-49 and 54-64 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,295,261 to Simonetti (hereinafter "Simonetti") in view of U.S. Patent No. 5,539,922 to Wang (hereinafter "Wang").

Claim 1 recites a system for determining context comprising [emphasis added]:

- one or more computer-readable media; and
- a hierarchical tree structure resident on the media and comprising
  multiple nodes each of which represent geographical divisions of the
  Earth, individual nodes comprising an entity identification (EID) that
  is unique to the node, EIDs serving as a basis by which attributes
  can be assigned to goods or services associated with an individual
  node, said multiple nodes comprising parent and children nodes, at
  least some of the parent nodes and their associated children nodes
  having EIDs that are unique for the associated node.

In making out a rejection of this claim, the Office argues that the claim is obvious over Simonetti in view of Wang. The Office states that Simonetti teaches "computer readable storages" and a "hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties, and cities." (Office Action of 10/20/05, p. 3). The

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Office then aptly states that "Simonetti does not clearly teach each of which represent geographical divisions of the Earth, individual nodes comprising an entity identification (EID), that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node . . . ." *Id.* Applicant agrees that Simonetti teaches no such elements. The Office, however, then cites Wang as teaching some of the elements, the Office stating the following:

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50).

(Office Action of 10/20/05, p. 3-4).

Finally, the Office states that it would have been obvious to combine these references, hence meeting the features of Applicant's claim. The Office offers the following motivation for the combination: "it would have been obvious [to combine the references] . . . for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's col. 14, lines 28-40)." Id. (emphasis added).

Applicant respectfully but strongly traverses the rejections for two reasons:

(1) the Office fails to present a *prima facie* case of obviousness by failing to provide a proper motivation to combine the references; and (2) the Office fails to

present a *prima facie* case of obviousness because the Office does not show how the references teach all of the elements of Applicant's claim.

First, the Office fails to provide proper motivation to combine Simonetti and Wang. When the Office's proffered motivation is analyzed, the reasons for making the combination are to make Wang's system "more efficient", to "reduc[e] the amount of modifications" of the Wang system, and to reduce "the size of memory" necessary for the Wang system. In other words, the Office states that it would be obvious to combine the teachings of Wang and Simonetti in order to make a better system. Merely stating that the combination of two references would result in a better or more efficient device falls well below the level of motivation required for an obviousness-based rejection, as outlined above. See, e.g., MPEP 2142 ("The factual inquiry whether to combine references must be thorough and searching.")

Furthermore, the Office fails to specifically show how the references themselves provide for the proper motivation. In attempting to show the aboveproffered motivation, the Office cites the following passage of Wang:

Furthermore, each time a customer moves from an area covered by one port to an area covered by another associated with another node, a modification to the data bases of the nodes occurs. For fast moving customers, the amount of data base modification within the communication system may become extensive. The amount of modification is reduced in the present system by providing communication systems having various coverage areas. Preferably, for a personal customer, the PCS transceiver is used, and for a customer using ground transportation such as an automobile, the cellular transceiver is used, and for a customer moving very fast, the airoral transceiver is used, and for a fustomer moving very fast, the airoral transceiver is used, and for a fustomer moving very fast, the airoral transceiver is used.

(Wang, col. 14, lines 28-40).

The above passage demonstrates that the Wang system, described above, is intended to track the location of a transceiver while attempting to reduce the

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amount of necessary modifications of the tracking database. Reliance on this passage for combining Simonetti and Wang, however, is misplaced. Applicant notes that the passage not only fails to evince any desire to combine, but the passage also specifically states that "It he amount of modification is reduced in the present system by providing communication systems having various coverage areas." Id. at lines 34-36. In other words, the Wang system reduces database modifications by allowing and encouraging a communication systems customer to switch transceivers depending their current transportation status (i.e. use the aircraft transceiver when flying, the cellular transceiver when driving, and the PCS transceiver when stationary). At no point does the cited passage of Wang offer the motivation to utilize the teachings of Simonetti. Even more, Wang already teaches the reduction of database modification, in a manner wholly independent and unrelated to the teachings of Simonetti.

Similarly, Simonetti is not cited for offering any motivation to combine with the teachings of Wang, nor would any such motivation be found by the Office. Applicant notes that while the Wang system tracks the location of a transceiver, the Simonetti system stores and retrieves information in a database. (Simonetti, col. 4, lines 65-68). Therefore, Applicant submits that the unrelated systems offer no reason to combine their unrelated teachings.

For at least this reason, the Office has failed to produce a prima facie case of obviousness and the claim is allowable.

Secondly, Applicant respectfully submits that the Office fails to produce a prima facie case of obviousness by failing to show how the references disclose all of the features of Applicant's claim. Applicant's claim 1 recites, in part, "individual nodes comprising an entity identification (EID) that is unique to the

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node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node". (emphasis added). In making a rejection of this claim, however, the Office only states that Wang teaches "in the level of states, the services for its telephone area code services . . . ." (Office Action of 10/20/05, p. 3). It appears that the Office cites Wang's "telephone area code services" as the "goods or services" of Applicant's claim. While not commenting on the propriety of such an assertion, Applicant notes that the Office has failed to show how and where Wang teaches "attributes [that] can be assigned to goods or services associated with an individual node", as recited in Applicant's claim. Applicant further notes that the Office does not even use the word "attributes" in showing how either of the references teach the elements of Applicant's claim. Because the Office has failed to show how the references teach all of the elements of Applicant's claim, the Office has failed to produce a prima facie case of obviousness.

For at least this additional reason, claim 1 is allowable.

Claims 2-8, and 10-19 depend from claim 1 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 1, are neither disclosed nor suggested in the references cited and applied by the Office.

Claim 24 recites a system for determining context comprising [emphasis added1:

- one or more computer-readable media;
- a first hierarchical tree structure having multiple nodes associated with a first context:
- at least one second hierarchical tree structure having multiple nodes associated with a second context; and

Claims 25-31 depend from claim 24 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 24, are neither disclosed nor suggested in the references cited and applied by the Office.

Claim 37 recites a computer-implemented method of determining context comprising [emphasis added]:

accessing first and one or more second hierarchical tree structures
that are resident on one or more computer-readable media, each tree
structure having multiple nodes, the nodes of the first hierarchical
tree structure being associated with a first context, the nodes of the
one or more second hierarchical tree structures being associated with
a second context; and

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Claims 38-43 depend from claim 37 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 37, are neither disclosed nor suggested in the references cited and applied by the Office.

Claim 48 recites one or more computer-readable media having computerreadable instructions thereon which, when executed by a computing device, cause the computing device to [emphasis added]:

> access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure; and

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Claim 49 depends from claim 48 and is allowable as depending from an allowable base claim. This claim is also allowable for its own recited features which, in combination with those recited in claim 48, are neither disclosed nor suggested in the references cited and applied by the Office.

Claim 54 recites a computer-implemented method of locating goods or services comprising [emphasis added]:

- defining a hierarchical tree structure comprising multiple nodes that
  each can define a physical or logical entity, said multiple nodes
  comprising parent and children nodes, at least some of the parent
  nodes and their associated children nodes having IDs that are unique
  for the associated node:
- associating one or more goods or services with one or more of the nodes; and

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23 24 25 In making out a rejection of this claim, the Office argues that the claim is obvious over Simonetti and Wang, using similar reasoning as discussed in regards to claim 1. Applicant submits that the Office has failed to produce a *prima facie* case of obviousness and that this claim is allowable for at least the reasons discussed in regards to claim 1. Specifically, the Office fails to provide a proper motivation to combine the references and the Office fails to show how the references teach "associating one or more goods or services with one or more of the nodes". For at least these reasons, this claim is allowable.

Furthermore, Applicant submits that the Office has failed to produce a prima facie case of obviousness for failing to show how the references teach all of the elements of Applicant's claim. The Office cites Simonetti as teaching "traversing the multiple nodes", but fails to show how either reference teaches "traversing one or more of the multiple nodes to discover a good or service", as recited in Applicant's claim.

For at least this additional reason, this claim is allowable.

Claims 55-56 depend from claim 54 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 54, are neither disclosed nor suggested in the references cited and applied by the Office.

Claim 57 recites one or more computer-readable having computer-readable instructions thereon which, when executed by a computing device, cause the computing device to [emphasis added]:

- associate one or more goods or services with one or more of the nodes; and
- traverse one or more of the multiple nodes to discover a good or service.

Furthermore, this claim is also allowable for the reasons discussed above in regards to claim 54. Specifically, the Office fails to show how the references teach "travers[ing] one or more of the multiple nodes to discover a good or service." For at least this additional reason, this claim is allowable.

Claim 58 recites a computer-implemented method of building contextaware data structures comprising [emphasis added]:

- receiving input from a source that specifies information pertaining to physical and/or logical entities;
- processing the information to define a hierarchical tree structure having a context, the tree structure comprising multiple nodes each of which represent a separate physical or logical entity, said multiple nodes comprising parent and children nodes, at least some of the

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- linking at least one of the multiple nodes to a node of another tree structure having a context and multiple nodes that represent physical and/or logical entities, individual nodes having unique IDs that can serve as a basis by which <u>attributes can be assigned to goods or</u> services.
- the tree structures being configured for traversal in a manner that enables context to be derived from one or more of the nodes.

Claims 59-60 depend from claim 58 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 58, are neither disclosed nor suggested in the references cited and applied by the Office.

Claim 61 recites a system for determining context comprising [emphasis added]:

- · one or more computer-readable media; and
- a hierarchical tree structure resident on the media and comprising
  multiple nodes each of which represent geographical divisions of the
  Earth, individual nodes comprising an entity identification (EID) that
  is unique to the node, EIDs serving as a basis by which attributes
  can be assigned to goods or services associated with an individual

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 wherein at least some of the nodes comprise a node selected from a group of nodes comprising: political entities, natural entities, infrastructure entities, and public places.

In making out a rejection of this claim, the Office argues that the claim is obvious over Simonetti and Wang, using similar reasoning as discussed in regards to claim 1. Applicant submits that the Office has failed to produce a *prima facie* case of obviousness and that this claim is allowable for at least the reasons discussed in regards to claim 1. Specifically, the Office fails to provide a proper motivation to combine the references and the Office fails to show how the references teach "EIDs serving as a basis by which attributes can be assigned to goods or services". For at least these reasons, this claim is allowable.

Claim 62 recites a system for determining context comprising [emphasis added]:

- · one or more computer-readable media;
- a first hierarchical tree structure having multiple nodes associated with a first context;
- at least one second hierarchical tree structure having multiple nodes associated with a second context; and
- at least one node from the at least one second hierarchical tree structure being linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having IDs that are unique for the associated node;
- wherein the nodes of the first hierarchical tree structure comprise geographical divisions of the Earth;

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Claim 63 recites a computer-implemented method of determining context comprising [emphasis added]:

- accessing first and one or more second hierarchical tree structures
  that are resident on one or more computer-readable media, each tree
  structure having multiple nodes, the nodes of the first hierarchical
  tree structure being associated with a first context, the nodes of the
  one or more second hierarchical tree structures being associated with
  a second context; and
- traversing multiple nodes of at least one of the tree structures to
  derive a context, individual nodes having unique IDs that can serve
  as a basis by which attributes can be assigned to goods or services,
  said multiple nodes comprising parent and children nodes, at least
  some of the parent nodes and their associated children nodes having
  IDs that are unique for the associated node;
- wherein the nodes of the first hierarchical tree comprise geographical divisions of the Earth; and
- wherein the traversing comprises traversing at least one node on each tree to derive the context.

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In making out a rejection of this claim, the Office argues that the claim is obvious over Simonetti and Wang, using similar reasoning as discussed in regards to claim 1. Applicant submits that the Office has failed to produce a *prima facie* case of obviousness and that this claim is allowable for at least the reasons discussed in regards to claim 1. Specifically, the Office fails to provide a proper motivation to combine the references and the Office fails to show how the references teach "unique IDs that can serve as a basis by which attributes can be assigned to goods or services". For at least these reasons, this claim is allowable.

Claim 64 recites one or more computer-readable media having computerreadable instructions thereon which, when executed by a handheld, mobile computing device, cause the computing device to [emphasis added]:

- access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure; and
- traverse at least one node of each tree structure to derive a location context, at least one node in a traversal path that leads to a root node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having IDs that are unique for the associated node

In making out a rejection of this claim, the Office argues that the claim is obvious over Simonetti and Wang, using similar reasoning as discussed in regards to claim 1. Applicant submits that the Office has failed to produce a *prima facie* 

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case of obviousness and that this claim is allowable for at least the reasons discussed in regards to claim 1. Specifically, the Office fails to provide a proper motivation to combine the references and the Office fails to show how the references teach "unique IDs that can serve as a basis by which attributes can be assigned to goods or services". For at least these reasons, this claim is allowable.

# Simonetti in view of Wang in further view of Papierniak

Dependent claims 20-23, 29, 32-36, 44-47 and 50-53 stand rejected under 35 U.S.C. § 103(a) as being obvious over Simonetti in view of Wang in further view of U.S. Patent No. 6,151,601 to Papierniak et. al (hereinafter "Papierniak").

All of these dependent claims, however, rely on independent claims that stand rejected as obvious over Simonetti and Wang, as discussed above. The addition of Papierniak is therefore not seen to add anything of substance to the rejection of these independent claims.

Dependent claims 20-23, 29, 32-36, 44-47 and 50-53 are therefore allowable as depending from allowable base claims. These claims are also allowable for their own recited features which, in combination with their respective base claims, are neither disclosed nor suggested in the references cited and applied by the Office.

### Conclusion

The Office has issued a number of office actions in the present application. Each time, Applicant has addressed and traversed the Office's rejections. By the time this response is filed, this application will have been pending more than five years and nine months. Applicant has sincerely and earnestly prosecuted this application and now respectfully requests that the Office pass the application to issuance.

Applicant once again respectfully requests that in the event the next action by the Office is anything other than issuance of a Notice of Allowability, a telephone call is made to Applicant for the purpose of discussing an Appeal.

Respectfully Submitted,

Dated: 1/2/06

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